

Table 3: Effect of subjective sleep characteristics (N=2551) and 2) polysomnography-derived sleep characteristics (N=1422) on weight gain (≥ 5 kg) over 5 years for each variable separately. Results adjusted for sex, age, education, marital status, alternative healthy eating index, sedentary behavior, smoking status and body mass index at baseline, CoLaus/HypnoLaus 2009-2017.

	OR (95% CI)	p-value
Subjective sleep characteristics		
Sleep duration		
<6 h	1.36 (0.89 - 2.06)	0.150
6-8 h (ref.)	1	
>8 h	0.99 (0.56 - 1.74)	0.969
Poor sleep quality (PSQI>5)	1.54 (1.19 - 1.99)	0.001
Excessive daytime sleepiness (ESS>10)	1.17 (0.81 - 1.68)	0.395
PSG Sleep characteristics		
Sleep duration		
<6 h	1.38 (0.93 - 2.04)	0.107
6-8 h (ref.)	1	
>8 h	0.67 (0.37 - 1.21)	0.182
Stage 1 (% of total sleep time)	0.92 (0.75 - 1.12)	0.406
Stage 2 (% of total sleep time)	1.32 (1.10 - 1.58)	0.003
Slow wave sleep (% of total sleep time)	0.85 (0.71 - 1.01)	0.071
REM (% of total sleep time)	0.88 (0.74 - 1.06)	0.170
Sleep efficiency	1.00 (0.81 - 1.22)	0.964
Severity of obstructive sleep apnea		
Normal	1	
Mild	0.94 (0.60 - 1.45)	0.773
Moderate/severe	1.29 (0.79 - 2.10)	0.313
Oxygen desaturation index		
Normal	1	
Mild	1.32 (0.84 - 2.05)	0.225
Moderate/severe	1.70 (1.01 - 2.85)	0.045
Mean oxygen saturation (SpO ₂)	1.01 (0.84 - 1.20)	0.954
SpO ₂ <90%	1.23 (1.07 - 1.41)	0.004

Arousal index	1.05 (0.88 - 1.27)	0.573
Autonomic arousal index	0.93 (0.77 - 1.13)	0.471
Autonomic arousal duration	1.22 (1.02 - 1.45)	0.030
Periodic limb movement index	0.87 (0.69 - 1.09)	0.217

PSQI, Pittsburgh sleep quality index; ESS, Epworth sleepiness scale; PSG, polysomnography; SpO₂<90%, percentage of sleep spent under 90% oxygen saturation. Statistical analysis conducted using logistic regression. Results are expressed as odds ratio (OR) and (95% confidence interval - CI).